Control of Bovine Tuberculosis (bTB) Cattle Bio-security - Part 5

TB BIOSECURITY – CATTLE TO CATTLE TRANSMISSION - REDUCING RISK

Bovine TB is a chronic disease and it can take years to develop. Due to the slow progression of infection, the clinical signs of bTB, such as weakness, coughing and loss of weight, are now rarely seen in cattle in GB. The Government's compulsory testing and slaughter programme ensures that most cattle herds are tested for bTB at least every four years. This identifies most infected cattle before the disease is apparent. Some husbandry practices put cattle farmers at greater risk of introducing TB into their herds. Once introduced into a herd the rate of spread of TB within a herd can also be influenced by husbandry methods.

This document suggests some common sense, precautionary measures that you can take. All farms are different so it is important to discuss with your vet and decide on measures to implement that are best suited to your farm. If your farm has never experienced bovine TB, or not recently, it is still advisable to undertake precautionary measures against possible infection from badgers and from brought-in infection from purchased or hired cattle.

There is likely to be a cumulative effect to be gained from implementing the suggested measures. Maintaining good animal husbandry practices is not the only preventative measure to reduce the risk of getting bTB. Routine surveillance, testing and slaughter of suspect cattle are essential as well as compliance with pre-movement testing.

CATTLE TO CATTLE SPREAD

Cattle to cattle transmission is a serious cause of disease spread which is substantiated by scientific evidence. Bovine TB is spread primarily through the exchange of respiratory secretions between infected and uninfected animals. This transmission usually happens when animals are in close contact with each other. Thus, animal density plays a major factor in the transmission of *M. bovis*, the bacterium that causes bovine TB.

Bacteria released into the air through coughing and sneezing can spread the disease to uninfected animals.

PROTECT YOUR HERD

All good husbandry practice helps to reduce the risk of animal diseases including bovine TB

- Provide good ventilation in livestock housing and do not overcrowd your animals
- Keep livestock away from freshly spread slurry and dispose of FYM so that cattle can not gain access to it.
- Work with your vet to formulate a TB health plan for your herd
- Keep animal identification and movement records accurate and up to date so that movements of cattle between herds can be quickly traced in the event of a breakdown.

It's important to ensure as best you can that the cattle you buy are healthy and free from disease. Cattle rarely show obvious clinical signs of bovine TB, and it is normally only detected by test results or at the slaughter house. Asking for dates and appropriate evidence of previous tests for all bought in cattle and the history of the herd will allow you to make judgements on that basis. If your herd has been free of infection for a long time, it is possible that local badgers are also free of infection.

Be aware, however, that infection in your cattle could result in the local badgers becoming infected and the cycle of infection becoming established in your area. In these circumstances it is much more difficult to clear.
TB in your herd endangers other farms in the area. This is why it is important that you follow isolation procedures for any inconclusive or reactor cattle to prevent bovine TB spreading.

Fig 1: Example of a typical isolation facility.

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KEEPING CATTLE AWAY FROM OTHER HERDS

- Ensure perimeter fencing, including gateways are adequate to prevent nose-to-nose contact with cattle on neighbouring farms.
- Common grazing, nose-to-nose contact at shared water courses etc are areas of particular risk for disease transmission between cattle.
- Be aware that there is a risk of disease transmission from hired or shared bulls.

Fig 2: Example of good back fencing preventing contact with neighbours stock.

PURCHASING CATTLE

The purchase of replacement stock and immediate mixing without isolation and testing, particularly in herds which purchase numerous replacements or the use of hired bulls, carry greater risks than maintaining closed herds. Always:

- Check the TB status of farms from where you buy your cattle (both the testing interval and the date of the last 2 tests).
- Ask for appropriate evidence of testing and TB status for all bought in cattle.
- Where possible breed your own replacements and /or use Artificial Insemination (AI) where practical.
- Consider post–movement testing especially if pre-movement testing is not a statutory requirement or the vendor had not had recent TB test on farm.

ISOLATION

Adhere to isolation procedures for any inconclusive or reactor animals. Some cattle infected with *M. bovis* may give an inconclusive test result if they were infected shortly before the test or if the immune system was temporarily lowered.

It is important to isolate inconclusive as well as reactor animals separately from the herd and adhere to any statutory notice regarding cleansing and disinfecting after removal of reactors.

Fig 3: Example of a loose box isolation facility.

CLEANSING AND DISINFECTION

Cleansing and disinfection (C&D) is an important disease control measure and may help reduce the risk of infection spreading to other cattle or to other susceptible animals on your farm. Under certain conditions, *M. bovis* can survive in the environment for a long time, so it is good practice, and will be a requirement under notice, served by Animal Health, to cleanse and disinfect thoroughly all buildings where reactor cattle have been kept.

It is particularly important to clean and disinfect any fittings or equipment that may have come into contact with sputum, faeces or milk from TB reactors.

Fig 4: Farm visitor cleansing and disinfecting their boots.

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Date: 30/11/2010

MILK

Feeding pooled, unpasteurised milk to calves can rapidly spread infection when milk is infected with TB. Discarded milk from mastitis cases should not be fed to calves. Pasteurisation of milk fed to calves could be undertaken where pooled milk is fed. Do not feed milk or colostrum, from reactors or inconclusive reactors to calves.

DISPOSAL OF MANURE

Bovine TB organisms can be excreted in the faeces of infected cattle – potentially contaminating the farm environment. Storing slurry or manure helps kill off the TB bacteria over time. You can use slurry or manure on your own land while TB restrictions are in place, although you should consider the risk of spreading the disease to other stock or wildlife.

Bedding and manure from premises under restriction should be sprayed with an approved disinfectant, then removed and stacked for at least three weeks prior to being spread. Ideally, slurry should be stored for a minimum of six months before being spread.

Care should be taken to prevent any livestock coming into contact with this bedding and manure.
Manure and slurry from premises under TB restrictions should be disposed of on land that is to be used for arable cropping. However, if manure or slurry has to be disposed of where cattle graze, it should be spread a minimum of 60 days before any cattle are allowed access.
Where possible, methods of spreading potentially infected manure and slurry should avoid airborne contamination.

Fig 5: Picture of muck or slurry spreading.